

REMARKS

This is intended as a full and complete response to the Office Action dated June 14, 2005, having a shortened statutory period for response extended one month set to expire on October 14, 2005. Claims 1-20 are pending in the application. Please reconsider the claims pending in the application for reasons discussed below.

Rejection Under 37 C.F.R. 1.83(a)

The Examiner objected to the drawings under 37 C.F.R. 1.83(a) because the drawings do not show a microstrip line comprising a first section of a microstrip line and a second section of a coplanar waveguide. In response, Applicants have amended the claims accordingly. Therefore, Applicants respectfully request the rejection of the drawings be removed.

Claim Objections

The Examiner objected to claims 2-7, 13-16, and 18 due to informalities. In response, Applicants have amended claims 2-7, 13-16, and 18 accordingly. Therefore, Applicants respectfully request the objection of the claims be removed.

Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected claims 1 and 10 as being anticipated by Ishimura, et al. (U.S. 5,602,672). In response, Applicants have amended claims 1 and 10.

As amended, claim 1 includes the limitation of a microwave input chip coupled to the modulator chip, the microwave input chip having a thin film resistor for connecting an RF connector to the RF electrode of the modular chip, wherein the microwave input chip is configured to increase the total input impedance of the modulator and claim 10 includes the limitation of a microwave input chip coupled to the modulator chip, the microwave input chip having a resistor member with a low impedance for increasing the total input impedance of the modulator, wherein the resistor member connects an RF connector to the RF electrode of the modular chip. Ishimura, et al. does not disclose a microwave input chip having a resistor for connecting an RF connector to the RF electrode of the modular chip, wherein the resistor is configured with a low impedance for increasing the total input impedance of the modulator.

As the specification of the present invention makes clear, the insertion of the resistor before the RF electrode lowers the electrical return loss, which results in a lower driving voltage design for the modulator. There is no specific teaching in Ishimura, et al. about the insertion of a resistor before an RF electrode to reduce the driving voltage of the modulator. Ishimura, et al. therefore fails to teach the structure claimed in amended claims 1 and 10 and, thus, cannot teach or suggest each and every limitation of these claims. This failure prevents Ishimura, et al. from anticipating amended claims 1 and 10. For these reasons, Applicants submit that amended claims 1 and 10 are in condition for allowance and respectfully request withdrawal of the § 102(b) rejection. Additionally, claims 3-4, 7, and 9 depend from amended claim 1 and claims 11-12, 14, 15, 18, and 20 depend from amended claim 10 and these claims are allowable for at the same reasons as claims 1 and 10.

Rejection Under 35 U.S.C. § 103(a)

The Examiner rejected claims 2, 6, 13, and 17 under 35 U.S.C. 103(a) as being unpatentable over Ishimura, et al. (U.S. 5,602,672). Applicants respectfully traverse the rejection. Claims 2 and 6 depend from claim 1 and claims 13 and 17 depend from claim 10. As set forth above, Ishimura, et al. fails to teach or suggest all the limitations in claims 1 and 10. For this reason, Ishimura, et al. may not be used to render claims 2, 6, 13, and 17 obvious. Applicants, therefore submit that claims 2, 6, 13, and 17 are in condition for allowance and respectfully request withdrawal of the § 103(a) rejection.

The Examiner rejected claims 5, 8, 16, and 19 as being obvious over Ishimura, et al. in view of Mineo, et al. (U.S. 6,101,295). Applicants respectfully traverse the rejection of claims 5 and 16. Additionally, claims 8 and 19 have been cancelled.

Claim 5 depends from claim 1 and claim 16 depends from claim 10. As set forth above, Ishimura, et al. fails to teach or suggest all the limitations in claims 1 and 10. Similarly, Mineo, et al. does not disclose the placement of a resistor before an RF electrode which results in the reduction of the driving voltage of the modulator. For this reason, neither Ishimura, et al. and/nor Mineo, et al. render claims 1 and 10 obvious. Applicants, therefore, submit that claims 1 and 10 are in condition for allowance and respectfully request withdrawal of the § 103(a) rejection.

PATENT

Atty. Dkt. No. AVAN/001112

Conclusion

Having addressed all issues set out in the office action, Applicants respectfully submit that the claims are in condition for allowance and respectfully request that the claims be allowed. If the Examiner has any questions, please contact the Applicants' undersigned representative at the number provided below.

Respectfully submitted,



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